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GRAIN STORAGE—
INDIA'S PRESENT
DILEMMA

Foreign
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This week's cover:

An Indian merchant measures out a portion of wheat flour. For once, wheat is plentiful in India, but lack of storage space still slows the movement of grain from farmer to consumer. See page 5 for article on this problem.

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Food is now being produced in greater quantities than ever before, but the problem of getting it to those who need it still remains to be solved.

By MARTIN KRIESBERG, *Director
Program Planning and Evaluation
International Agricultural Development Service*

For years now the search for solutions to the world's food problems has focused on boosting production, with the result that ominous warnings of starvation are slowly being transformed into a belief that enough food can be produced to feed the world's people. In South Asia and the Far East and, to a lesser extent, in Africa and South America a revolution in crop production is becoming evident, thanks to decisive government actions, new high-yielding varieties, greater application of fertilizer, more scientific management, and U.S. aid.

This year the total food supply available in many developing countries will be adequate to meet the minimum needs of their populations. The question is, Will it get to the people who need it?

This is today's—and tomorrow's—challenge, for world hunger will not be relieved without basic changes in distribution and marketing. The impact of greater production will be slight unless marketing systems are geared up, too. Indeed, marketing systems would need to expand at a much higher rate than production since a large proportion of the increased output would require commercial marketing.

*The marketing system must serve the
interests of both producer and consumer
if it is to help solve food problems.*

For example, a small farmer producing 100 bushels of corn uses 75 for his family and markets the remaining 25. When he increases his production by 20 percent or 20 bushels and markets his additional production, the 20-percent increase in output becomes an 80-percent increase in marketings. If he cannot market his extra output at a reasonable price, he will be likely to revert to producing largely for his family.

Thus, the marketing system in developing countries is critical in two aspects of the food problem: One, if it does not serve the interest and needs of the producer—if this additional production does not move to market and brings him

Research for Solutions Turns to Distribution

no additional earnings—he is disinclined to produce more. And two, if the marketing system does not bring the food to the consumer when he needs it and at prices he can afford, the higher production will do little to resolve food problems.

Marketing needs vary among the developing nations, but there are some basics that have general application. Policies are needed to assure the orderly marketing of increased production, and the marketing system should be able to take the increase without depressing prices. Price levels should assure the farmer a return adequate to cover his higher input costs and reward him for his more productive efforts. An effective marketing system also requires grades, standards, and price differentials for quality differences. Enough information must be available and the opportunity afforded for farmers to make appropriate marketing decisions.

*Government and industry will have
to get together to establish efficient
institutions to handle food marketing.*

Providing incentives and assistance for improved commercial marketing of food will require new initiatives by governments in the developing countries and cooperation from their private sectors. In many of these countries, marketing boards have been instituted as market-stabilizing agencies for particular commodities. So far, these boards have been used more in connection with export commodities than for domestic foods, but this experience should be relevant to domestic marketing of food crops. Marketing cooperatives are important, too, not only to carry out marketing functions, but also to provide farmers with market intelligence. Special agencies for stabilizing food prices and supplies have been used increasingly in developing countries; with more sophisticated application, they can be more useful. Contract production, which is used for some crops in the United States, has been used little in developing countries but holds promise. The role of big canning companies in improving truck farming operations is an example of what might be possible. So is the part agribusiness can take, as it has in integrated poultry operations in the United States.

Before any of these projects can be instituted, economic analyses of present marketing institutions and of the potential of alternative institutions are needed as a basis for public policies and both public and private investment. Administrative and financial capabilities must also be reckoned with, as must the availability of public and private services to agriculture. Above all, in most developing countries it must be remembered that substitution of a capital-intensive operation for a labor-intensive one holds little merit. Costs and efficiency need to be measured as much in terms of capital scarcities as labor scarcities and in terms of food preservation as well as consumer convenience.

Structural improvement of the marketing system in a devel-

oping country will do little good if some related problems are not tackled simultaneously. Food losses—in some countries very large—in moving products from producer to consumer must be reduced. Processing and preserving add to the efficiency of food distribution and hence should be considered. The nutritional value of what is marketed also must be taken into account, and often the protein value of foods can be enhanced. And finally, commercial channels of distribution may have to be supplemented in areas where food problems are acute for the proportion of the population living outside the market economy.

Losses to foodgrains in storage and transit contribute in a large measure to food deficits in developing countries. In India, for example, insects reportedly cause post-harvest losses of at least 10 percent of cereals; rodents are reputed to cause an added loss of 10 to 20 percent of stored grains. Syria and Lebanon reportedly lose 7 to 10 percent in grain storage, and a report on Brazil places losses of stored grains at 15-20 percent. By comparison, the massive Commodity Credit Corporation grain-storage program in the United States now operates with a deterioration of only 0.5 percent annually, down from an initial loss rate of almost 5.0 percent. This has been made possible through research on methods for controlling, preventing, and eradicating losses and spoilage. A similar effort is needed in the developing countries. As more foods are produced and moved to market for burgeoning urban populations, losses become larger. The loss is not only in the harvested crops; all the resources that went into their production are also lost. Moreover, it will take another growing season to provide new products to make up the losses.

*Processing and preserving industries
can help in many ways provided they are
established according to local needs.*

Another important way to avoid waste—as well as to simplify transportation and spread the period of consumption—is through processing and preserving. These activities introduce a concentration point for movement of commodities and hence serve as a focal point for improvements in both supply and distribution channels. Where plants for processing foods can be located in rural areas, they can provide much-needed employment for those now underemployed much of the year. Of course, economies of large-scale operations may not be realized in the developing countries since they usually contain large numbers of small suppliers. But small operations, requiring less capital and more labor, can be quite suitable for these countries; all they need is more machinery and methods adapted to small-scale operations. In the Philippines, for example, a local company is manufacturing canned milk from domestic coconut oil and imported nonfat dry milk; this product is making inroads into the prevailing market for imported evaporated milk.

The technology of food processing and preserving has been growing rapidly in the developed countries, and much could be adapted to the needs of less developed countries. The worldwide distribution and sale of cola drinks suggest what could be accomplished. But in the interest of diet deficiencies of low-income countries, emphasis might be less on convenience and duplication of Western products and more on waste avoidance and nutrition.

For the food-short peoples of the world the effective use of what has been learned about human nutrition can make the difference between adequate diets and chronic malnutrition. Distribution and marketing techniques can do much to encourage the eating of more nutritional foods—particularly new protein foods and fortified cereals. An early example of this is "Vitasoy," a high-protein beverage now outselling leading cola drinks in Hong Kong. Marketed as a milk substitute, it failed; adaptation of the product to the distribution and promotion techniques of the carbonated-beverage industry brought success.

In countries where the food and nutrition problem is acute for a high proportion of the population outside the market economy, commercial food distribution channels need to be supplemented. Although improved diets for both urban and rural poor ultimately depend on better education, increased productivity, and higher incomes, interim measures may be needed until these are realized. Marketing specialists can be instrumental in devising these measures.

In urban areas, efficient retail depots where the poor can get a few basic foods at controlled prices may be required. For a few basic foods, free and controlled markets may have to exist side by side. Free food distribution to marginal groups—the very young, the very old, and the incapacitated—may need to be continued. In rural areas, which external food aid may not reach, improved diets will depend mainly on stimulating the small farm operator to diversify production and increase yields. As rural people supplement their limited cropping efforts with small-animal breeding, fishing, and poultry raising, they will provide themselves with better, higher protein diets. At the same time, they will have more to trade in the local markets to supplement their meager grain diets.

*Solving marketing problems will require
perhaps as much investment as will be
needed to sustain production growth.*

What are the most efficient ways of doing these things? What institutions should be involved? How can commercial markets be insulated from free food distribution? These are the questions marketing innovators will have to answer.

Establishment of viable marketing systems is going to require a tremendous investment. Frequently, discussions about the amount of investment needed to spur agricultural development concentrate strictly on production and overlook marketing completely. For example, the panel on World Food Supply of the President's Science Advisory Committee has

estimated that \$21.2 billion would be needed to sustain a needed 4-percent rate in agricultural growth in the developing countries between 1965 and 1985. Perhaps as much would be needed for investment in marketing enterprises, including farm-to-market roads, transportation equipment, storage, central market facilities, and processing plants. Also needed are a wide range of related investments for a modern marketing system: packaging and containers, refrigeration and special handling equipment for wholesale and retail outlets, and advertising and public relations activities to create consumer interest and provide information on nutrition and new-product development.

This investment will not be without risk. However, potential growth rates for market services needed in developing countries, particularly in those with burgeoning middle classes, offer some assurances. For example, in Latin America it is estimated that a middle-class market of 68 million people in 1962 would be 90 million in 1965 and 183 million in 1975 if overall economic growth rates of 6 percent per year can be maintained.

*Funds will have to be invested in
human resources so that marketing agencies
will have well-trained personnel.*

Investments to modernize agricultural marketing are actually investments in the entire economy since they stimulate both agricultural and nonagricultural development. While increasing farm incomes, these investments also provide opportunities for labor coming off the farm or already in surplus in the cities. They may enhance export earnings as well.

A portion of the investments will have to be earmarked for human resources development. Here too, focus in the past has been largely on production; education and extension programs have been little concerned with marketing and distribution. Substantial investment is required for training personnel in agribusiness firms as well as in government agencies dealing in marketing.

Of course, any development of modern marketing systems will have to take production into account. Numerous instances can be recalled where production input supplies were not coordinated with farm production practices. As a result, fertilizer was in storage when it was needed in the field. These instances have led agricultural experts to focus on the "package" approach to production, whereby inputs and methods are linked to obtain efficient and optimal use of both.

A similar coordinated effort is needed to link production with marketing. The substantially increased harvests anticipated with the introduction of high-yielding varieties of cereal grains will go to waste if the distribution system cannot handle them and get them to waiting consumers. Those who handle crops in the marketing system will need to adapt their methods to the new varieties, and government agencies will need to take into account the different marketing patterns in order to provide adequate supporting services. Marketing, no less than production, must be planned ahead.

Grain Storage—India's Present Dilemma

By GUY L. HAVILAND

Assistant U.S. Agricultural Attaché, New Delhi

Now that a record grain harvest has temporarily eased its food shortage, India is tackling another problem—the lack of grain-storage facilities. In the grain-surplus States, where the problem is acute, and elsewhere, the government is building new warehouses and grain silos and making plans for more.

This accelerating program provides a sharp contrast to the traditional way of storing grain in India—a way that still predominates in many communities. Throughout its past history, India depended on the farmer to store as well as to produce each year's food needs. The farmer's storehouse was a corner of his small, frequently one-room home; a clay-lined pit in the yard; large woven baskets; or crudely built bins. Losses during storage were high, though undeterminable. Rodents in many cases destroyed large portions of the harvest, and insect infestations caused additional losses.

Go-betweens for the farmer and the urban dwellers were the merchants, who maintained small storage houses or "go-downs." They would buy or barter for a portion of the Indian farmers' produce with cash, clothing, and household goods. Up until the early 1950's, these merchants owned and con-

trolled all of India's off-farm storage capacity for foodgrains, and the total of this capacity was never known.

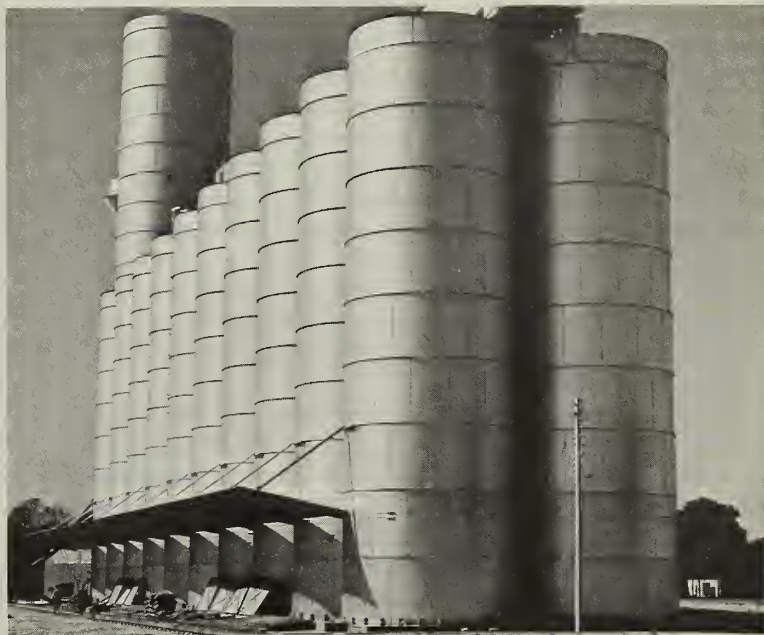
Such a setup worked—provided crop conditions were normal—when India's population was half or two-thirds of what it is today and was concentrated in the rural areas. But the rapidly growing population and food needs of recent years have made it increasingly imperative to find better ways of storage than these anachronistic methods.

Problems begin in the 1950's

The deficiencies of India's grain-storage system became most obvious in the early 1950's, when India suffered a series of poor crops. Food aid, including the first major shipment of U.S. wheat, was received from many countries. The Indian Government at this time realized it needed to maintain buffer stocks of grain for emergencies. However, it had no large warehouses of the type needed to store grain, nor were there grain silos in India. Available commercial storage was small and decentralized.

This forced the government into immediate action. It began importing and manufacturing prefabricated warehouses, which were erected in or near port cities, and it built additional permanent facilities of concrete and steel near the major ports and population centers. The capacity of these govern-

Right, a look at some of India's modern storage facilities—a grain silo at Hapur and installations near Madras Harbor. Below, bagged grain in another Madras warehouse.



ment-owned warehouses now exceeds 6.0 million tons, and more are under construction. Cooperatives have an additional 2.2 million tons.

Most of the warehouse space, however, is for bagged grain rather than bulk storage, and this has created still another challenge. The government has found disadvantages in its warehouses, especially when the grain must be fumigated. Also, reuse of space is a major factor as new grain is not stored on top of old grain. As a result, the government decided a few years ago that silo storage would be even better suited to its needs. It began serious consideration of concrete grain silo complexes in about 1960 and constructed a unit in Hapur, a major rural market, and another in Calcutta shortly thereafter. In 1967, a unit of 52 silos, each with a capacity of 2,000 metric tons, was completed near Bombay; similar units have been opened in the States of Gujarat and Uttar Pradesh.

Silo and bin storage, while preferred by the government, faces some resistance from Indian farmers. Each farmer now brings to the storage area his bagged grain, with each bag personally identified. He later expects to recover that grain and sell it. With silos and bins, the farmer faces the prospect of having his grain weighed and graded and paid for at time of storing. This will be a major change in distribution and

may not be readily accepted by the many small farmers. Larger farmers producing grain for the market are satisfied with the arrangement, but there are relatively few in this category.

Also to be overcome is the disproportionate distribution of these storage facilities.

In the past, the location of a warehouse was determined by need based on conditions of food shortage. Thus, a large portion of the warehouses are within a relatively short distance of the major ports of Bombay, Madras, Calcutta, and the ports of the States of Gujarat and Andhra Pradesh. In addition, about half a million tons of government and cooperative storage are in the foodgrain-short State of Bihar.

This year's foodgrain harvest, however, is revolutionizing the need for grain-storage capacity. While the buildings in deficit areas have been empty, the large surplus-food-producing States are virtually without modern storage facilities. And present restrictions prohibit movement of the wheat from surplus to deficit areas except by the Central Government.

Thus, in these surplus areas, the government must now build silos and warehouses and work to improve farm and village storage. It has already developed plans for inexpensive weather- and rodent-proof farm storage and arranged to erect steel storage bins in villages in Punjab and Haryana.

Canadian Grain Shipments Blocked at Lake Superior

With a possibly above-average grain crop being harvested and commitments already made for wheat exports, the Canadian Government, the grain trade, and farmers are fearing a very poor year for Canadian wheat exports. The nub of this seeming paradox is the grain-handling facilities at Port Arthur and Fort William on the north shore of Lake Superior. The elevator workers in the two ports are on strike, and negotiations between the grain handlers and the 11 elevator companies concerned have broken down. Normally, the elevator facilities of the two ports, the biggest terminal elevator complex in the world, handle nearly all wheat exported from the prairies of Manitoba and Saskatchewan. At the ports wheat is unloaded from trains, sorted, cleaned, stored, and transferred to ships to take it to foreign markets via the St. Lawrence Seaway.

Every day the strike continues the situation becomes more serious for the Canadian wheat farmer. This year's wheat crop is estimated at about 600 million bushels or perhaps higher—or larger than last year's. Harvesting is beginning now in the prairie wheat areas. But because of two factors—very large carryover stocks from last year (around 700 million bushels) and the previous tie-up of grain movement from lake ports by the 24-day St. Lawrence Seaway strike—lake elevator terminals, prairie country elevators, and private farm storage are full. To add to problems, the weather has been wet. If harvested grain is not moved quickly to elevators with drying equipment, much wheat may be lost by deterioration.

Canada's Wheat Board is deeply concerned that continuation of the strike may seriously hurt Canada's wheat export trade, which is vital to the country's balance of payments. The importance of this trade is apparent—in the recent past, Canada's share of the world grain market has been 20 to 25 percent.

Elevators on the eastern seaboard are nearly empty because grain was taken from them to fulfill export commitments

during the Seaway strike; additional grain can be moved to them only by rail—a method expensive to the farmer and producing only a trickle in comparison to normal waterway shipments. Stocks in Montreal elevators are down to 8½ million bushels, of which only 1 million is available for export. In other words, with a large wheat crop which it has no place to put, Canada can export practically no grain.

As temporary emergency measures, about 10 million bushels of wheat has been stored in 11,000 boxcars on railway sidings. Some of the 15 million bushels normally held in Georgian Bay (Lake Huron) elevators for winter has been moved by rail to Montreal, and some 8 million bushels is being moved from Saskatchewan to eastern ports by rail. A plan for shipping grain by rail to Duluth in the United States under bond for re-export on lake carriers might provide a small outlet but would certainly not solve the backup. Duluth facilities cannot cope with large amounts of Canadian grain in addition to the U.S. grain normally shipped, and Duluth union members may refuse cooperation.

Argentine Bean Estimate Down

Argentina's Department of Agriculture has sharply lowered its estimate of 1967-68 dry bean production because of severe drought and some frost damage to bean fields. The main bean-producing Provinces are Salta and Córdoba. The new revised estimate is only 22,860 metric tons of dry beans compared with the previous estimate in May of 31,900 tons in spite of acreage a third higher than last season's. Last year's production was 27,300 tons.

Domestic consumption of beans in 1966-67 was about 12,000 tons; exports were about 15,000 tons, and the chief buyers were Italy, Spain, Japan, and the Netherlands. The small crop this year will probably result in reduced exports in 1968.

Progress of Agriculture in Venezuela

Venezuela's Minister of Agriculture and Livestock, Dr. Alejandro M. Osorio, recently outlined the past successes and future prospects of Venezuelan agriculture in a speech to leading representatives of that country's private sector.

Growth in past decade

Summing up the basic characteristics of agricultural activity between 1957 and 1967, Minister Osorio made the following four points:

"1. Agricultural production has grown, and has done so at a rate in the last 10 years which is higher not only in comparison with any other period of our history but also in relation to almost all the rates of growth observed in the agriculture of the Latin American countries in the same period.

"2. The product created per economically active person in the sector grew at a rate of 3.7 percent per year between 1957 and 1967.

"3. Eighty-three percent of consumption is satisfied with domestic products, compared with 72 percent in 1958.

"4. As concerns the market, prices of agricultural products have stayed relatively stable, if one considers stable a growth rate in recent years of a mere 2 percent annually."

An optimistic look ahead

Turning to a consideration of the future, Minister Osorio observed that "there are reasons, objectively verifiable, to be optimistic." He then discussed the future in terms of meeting domestic demand, production of products that might substitute for imports, and the outlook for exports.

"Accepting the idea that the growth rate of the Venezuelan population in the next 10 years will be between 3 percent and 3.6 percent and that the annual rate of increase in per capita income will be 5 percent and that at the same time the income-consumption elasticity of agricultural products varies between 0.2 and 0.5, we could then set the growth rate of agricultural products at 5 percent to 5.4 percent. In other words, we estimate that from the current year until 1978 the domestic demand for agricultural products will tend to grow at the rate just mentioned, or 5.4 percent per year as a minimum.

"That is the first challenge which our now dynamic agriculture presents to the agricultural and livestock producers of Venezuela. To meet it, our agricultural production will have to grow by a rate of at least 5.4 percent annually during the next decade. According to this, the value of the agricultural product for 1978 ought to be of the order of approximately 4.9 billion bolivares (\$1.08 billion).

"I consider that this prospect which agricultural production presents us of growing by 5.4 percent annually in the next 10 years will certainly involve an effort by the public and private sectors closely allied in the national agricultural and livestock process, but it is an effort which is perfectly possible to carry out if we consider the growth rate of 6.3 percent which the sector has shown between 1957 and 1967.

"On the other hand, I am sure that in some ways even this effort could seem insignificant when we consider the great

possibilities which we have in our domestic market to produce domestically those goods which might substitute for imports. In this matter, the Ministry of Agriculture and Livestock judges that there exists a range of products susceptible to being produced by us in conditions of comparative technical and economic efficiency, among which are kidney beans and black beans, long staple cotton, seed potatoes, peanuts, copra, as well as beef, pork, and milk which are still imported in not insignificant quantities. In fact, in 1966, our country imported Bs250 million (\$55.5 million) worth of the goods just alluded to, among which just one group, milk, accounted for an expenditure in the world market of Bs85 million (\$18.8 million).

"The second group of products, which enlarges and makes the outlook for the sector even more positive, is what we make from products which are partly of domestic origin. In that we include wheat for animal feeding—completely substitutable by sorghum in the near future—garbanzos, grapes, and dried fruit. In these areas we spent something more than Bs100 million in 1966 (\$22.22 million).

"Lastly, there is a third group, which includes sectors such as wheat for human consumption, pears, apples, cherries, nuts, and other Temperate Zone fruits. This is pointed out because we certainly do not observe in our country any of the conditions which are necessary to produce them, and therefore we will have to continue buying these outside Venezuela, although of course it would be desirable to modify through institutional campaigns the consumption habits of our people in order thus to boost national products.

"Once more, the prospect which emerges from a brief analysis of these three groups of normally imported products is satisfactory. Even within our internal market and additional to the 5.4 percent rate of growth of agricultural and livestock production to which we alluded before, relatively bright possibilities exist to provide the agricultural products obtained domestically with a market based on Bs200 million worth of import substitution (\$44.44 million).

"Finally, I want to refer to the outlook which we deem likely regarding exports of our agricultural production. These are based on the degree of development presently achieved by the sector. Certainly, Venezuela has always exported agricultural products and logically we ought not and cannot lose this status. We must increase and strengthen this activity, diversifying it and at the same time making it profitable. Based on that criterion, we judge that in the coming years our nation will be in a position to export on a permanent basis and without state subsidy the following products, many of which we are already marketing overseas: plantains, bananas, shrimp and other seafoods, eggs, poultry, sesame, beef, tobacco, fruits, and forest products, categories which presently constitute almost half of the national agricultural product. On the other hand, we should also state a special view in reference to certain lines of exportation: coffee, cocoa, cane sugar, and rice, in which we have surpluses which, if we keep on selling in foreign markets, could occasionally mean losses for our economy."

—Translation in a dispatch from DONNA H. SANDIN
Assistant U.S. Agricultural Attaché, Caracas

Agriculture Widens Zambian Economic Base

Zambia, a central-African nation about the size of Texas plus North Carolina, is the world's third-ranking copper exporter. It has a highly developed mining complex and is expanding present manufacturing industries and adding new ones rapidly. Between 1960 and 1966 it had the highest rate of growth of gross national product of any country in Africa. At the same time, about 70 percent of Zambia's population is engaged in subsistence farming and does not produce enough of most major agricultural items to supply the country's needs. Zambia is a rich nation that cannot feed itself.

Zambia has more-than-sufficient foreign exchange from its copper sales to buy food, but its dependence on outside food sources has several disadvantages. First, costs of imported goods are relatively steep because of high transportation costs. Second, money spent to import food cannot buy materials to set up new industries or improve agriculture. Perhaps most important of all, Zambia is at political variance with Rhodesia, through which the rail line runs to seaports. Zambia could be cut off from its traditional route for exports and imports.

Commercial and subsistence farms coexist

Agriculture in Zambia is checkered. Near the rail line are commercial farms, mostly owned and managed by European settlers. A few commercial farmers, European and African, are scattered elsewhere; but in many of the remoter sections only subsistence farming is practiced. The traditional methods used often produce very low yields.

Although about three-quarters of Zambia's population is engaged in farming, the annual value of their output is only about US\$70 million, compared with a gross national product in Zambia in 1965 of \$842 million. Only about \$14 million of the value of annual agricultural output is farm income; average income per farm family is about \$140 per year.

The Zambian Government is encouraging increased production by commercial farmers and is trying to help substantial numbers of African farmers move from subsistence to cash agriculture. Under the government's present 4-year development plan, about \$123 million will be spent between 1967 and 1970 on agricultural and related projects. It is hoped that before 1975 Zambia will be self-sufficient in production of sugar, cotton, oil peanuts, beef, dairy products, poultry, and fruits and vegetables. Zambia is already an exporter of corn, the staple diet of much of the population.

The main crop of Zambia's subsistence farmers is corn. In some areas villagers have cattle, goats, or sheep; but large areas are unsuitable for cattle raising because of tsetse fly infestation. Farmers who grow some crops for subsistence and some for cash grow corn, confectionery peanuts, burley and Turkish tobaccos, cotton, and fruits and vegetables. Commercial farmers mainly raise corn, Virginia tobacco, and beef and dairy livestock.

Production and prospects

In 1967 the total corn deliveries were about 408,000 metric tons, of which about 136,000 metric tons were exported. Both production and exports were higher than in 1966.

The total value of Virginia tobacco sold on the Lusaka auction floor in 1967 was about US\$6.2 million. The volume

was down from 1966, but the value was up. Sales of burley tobacco (about 600,000 pounds in 1967) and Turkish (about 289,000 pounds) were lower in both volume and value in 1967 than in 1966. Tobacco is Zambia's most valuable agricultural export (corn is second), and sales value and volume may increase. A new tobacco-packing plant in Lusaka worth \$5.6 million should help boost production and eliminate trucking tobacco to Malawi for packing for overseas shipment.

Another valuable export crop is timber—particularly Zambesi teak (*Baikiaea plurijuga*), which grows in Barotse Province in southwest Zambia. During the year ending March 31, 1967, 2.1 million cubic feet of teak were cut. Considerable investment has been made in plantations of fast-growing tropical pines and eucalypts to produce timber and poles for mines and lumber for the building industry. In 1965 timber was Zambia's third most valuable nonmineral export.

Confectionery peanuts are also an important export crop; they are raised chiefly in the Eastern Province by African farmers. In 1967 a commercial crop of over 30 million pounds of shelled nuts of all types was produced, a large proportion of which was exported. Zambia needs to grow considerable quantities of the oil-bearing type of peanut to supply the requirements of soap, cooking oil, and margarine manufacturers, who at present are importing large quantities of oil.

Cotton is a relatively new crop in Zambia. Production and acreage planted by both small-scale and large-scale producers is increasing rapidly. Zambia's yield of seed cotton for 1967 is estimated at 4.5 million pounds—down about 26 percent from the 1966 output because of a severe infestation of American bollworm. African farmers are now growing about 75 percent of the total crop—2 years ago they grew only 40 percent. Prospects for increased cotton production are good. Producer prices have improved because a new textile mill has started operation in Lusaka. The new mill has the capacity to process 15 million pounds of raw cotton a year.

In the past Zambia has had to import all its sugar; this year a new irrigated sugarcane plantation and raw sugar factory are beginning operation at Nakambala on the Kafue River. Plans are that in 1968 about 5,000 acres of cane will be harvested and processed. Raw sugar will be shipped to an existing sugar refinery in Ndola. Eventually, 17,000 acres will be irrigated on the Nakambala plantation, and Zambia should become self-sufficient in sugar production. Because sugar consumption is increasing rapidly in the country, production may not catch up with use for several years.

Although Zambia has a total cattle population of close to

*Woman with
traditional hoe
preparing new
land for crop.
(Photos by John
A. Williams.)*



1.3 million head, it is unable to meet its internal beef requirements. Commercial beef cattle numbers had decreased from more than 193,000 in 1962 to less than 119,000 in 1966. Zambia at present has to import about one-fifth of its slaughter beef and gets animals mainly from neighboring Botswana at a cost of about \$2.8 million a year. (Recent plans have been made to buy 100 tons of beef a year from the Malagasy Republic.) Traditional African cattle owners are reluctant to step up sales from their extensive herds because of the historic role of cattle in their cultures as status symbols and trading units. In addition, cattle sold by traditional African farmers have low carcass weight (about 375 pounds) due to lack of scientific management and feeding.

Before 1965 the Zambian dairy industry produced more milk than was consumed in the country and the remainder was turned into cheese, butter, and other products. Then, in June 1965, the Zambian Government decided to lower the price of whole milk in densely populated areas to the equivalent of \$0.07 a pint so that families in lower income groupings could buy whole milk regularly. The consumption of milk has jumped. Dairy production, however, has decreased because of a fall in numbers of mature dairy cows. At present the total commercial dairy herd, including young stock, is about 15,000. Mature cows number about 8,000.

The Zambian Government is temporarily filling the widening gap between production and demand with imported dairy products and is taking active measures to encourage the dairy industry. Units have been established to provide training for African farmers in dairying techniques. Bonuses are paid to registered dairy farmers who raise heifer calves from an approved strain of semen, and subsidies are offered on the importation of approved female dairy stock. The government itself recently imported 75 head of dairy cattle as foundation stock for a dairy farm near Lusaka. Finally, the producer's price for whole milk has been raised.

An important contribution to the diets of many Zambians is made by fish. Small commercial fisheries have been established on Lakes Kariba, Tanganyika, and Mweru and on the Kafue River. Much of the fish caught is sun-dried and sold in African markets. The fishery on Lake Kariba has facilities for fast freezing. Considerable fishing is done by individuals or villages to supplement meat-scarce meals.

At controls, cars, people, and animals are stopped, and any fly hitchhikers are killed to prevent their spread to free areas.



September 9, 1968

Poultry-meat and egg production has made considerable strides since before Zambia's independence. For example, production of day-old chicks in 1963 was nil; in 1967 it was about 2.2 million and exports were substantial. During the same period egg production rose from about 1.4 million dozen to 3.0 million dozen. Production of dressed poultry quadrupled. Both commercial poultry companies and co-operatives have contributed to the success.

Zambia also has a number of minor agricultural products that can perhaps be developed—bananas, pineapples, and coffee are examples.

Aids to farmers

Indigenous farmers are being encouraged to switch from subsistence to commercial farming. One of the assistances available to them is loans to buy or improve land. Such loans are financed by the Land and Agricultural Bank but are approved, supervised, and collected by the Credit Organization of Zambia—a government agency. Farmers can get loans from the Land Bank for machinery, wells, and other improvements. African farmers growing tobacco as a cash crop can get production loans from the government.

Marketing cooperatives have already become popular in Zambia among farmers with cash crops to sell and are numerous. In 1966 over 600 cooperatives were formed with a different aim—the increased production of peanuts, tobacco, cotton, and corn by opening up new land. The government helped the new cooperatives by importing tractors and other heavy farm equipment, which was placed in equipment pools for use by cooperative members by lease or contract. Two factors have operated to slow the use of the new machinery—fuel rationing and the lack of trained operating and repair personnel.

A small government pilot plan is a fertilizer subsidy scheme for selected farms to demonstrate to local farmers the higher yields that fertilizers can induce. It is hoped that the scheme will increase fertilizer use. To provide the fertilizer, a new nitrogenous fertilizer plant will be built in Kafue.

A new \$19.6-million corporation has been formed to run agricultural projects on a commercial basis in the country—the Agricultural Development Corporation of Zambia. The new corporation will supervise some tobacco projects and run and expand the national ranches where cattle are held for finishing. The number of cattle now on such ranches is 12,000. The corporation is designed to lift some of the load from the Ministry of Agriculture and to eliminate delays and red tape in commercial projects.—F.N.P.

African tobacco growers in Zambia's eastern region are being paid for their year's crop at the Kalichero Agricultural Station.



Movie Tells Our Agricultural Export Success Story

The U.S. farmer's link to the rest of the world is vividly illustrated in a new USDA movie, *Farmer for the World*.

This 28½-minute color documentary shows U.S. wheat, feedgrains and soybeans on the move—from the fields of Nebraska, Kansas, and the Dakotas to the freighters for their voyages to the docks of Hamburg, Tarragona, Bombay, and Yokohama. And from these destinations, the products are traced to flour mills and bakeries, soybean crushing and feedmixing plants, modern hog and poultry farms, and eventually the supermarkets where customers are buying the resultant bread and noodles, pork and chicken, and soybean oil and soy products.

"More than enough for our needs. . . . Plenty to sell overseas . . . and we do . . . a billion dollars' worth each year," is repeated for the three feature products—soybeans, feedgrains, and wheat. These products collectively account for almost half of U.S. agricultural export earnings.

Just as the top U.S. farm products are featured in the film, so are some of the major overseas markets where U.S. industry groups and FAS are working in market development. Germany, Spain, and Japan represent ascendant dollar markets, while India represents recipients of U.S. food aid.

Germany and Spain

First stop on the armchair trip is Germany. There, after seeing grains unloaded in the busy port of Hamburg, the viewer moves to a Bavarian marketplace surrounded by the picturesque houses and cobbled streets that have made this region famous. The outdoor market and peasants cultivating their fields in the same way their fathers did show that traditional ways still prevail in parts of Germany.

But then one sees the ultramodern livestock farms and the feedmixing plants, where the push of a button produces expertly mixed formula feeds. U.S.-backed feeding trials and other market development activities helped to develop this modern side. It's the Germany U.S. exporters are catering to and the one that's buying 2 million tons of U.S. feedgrains yearly.

On to Spain—today one of the world's fastest developing countries. While the romance of old Spain still draws millions of tourists yearly, the new Spain is buying huge quantities of U.S. soybeans for

crushing in modern plants. The oil is often used as a substitute for domestically produced olive oil, while the meal finds its way into feed for the burgeoning livestock population.

What better example of the U.S. impact here than the U.S. breed of chicken that is nourished with U.S. soybean meal and grains and lays more eggs for new products like American-style doughnuts, which are fried in U.S. soybean oil?

India and Japan

On the other side of the globe, the movie shows the more sobering scenes of Indian people attempting to better their lot. Important to this is wheat supplied under the U.S. food aid program, which has helped that country avoid famine in the past few years. The movie also shows U.S. and Indian nutritionists helping village women to upgrade their meager diets.

The journey ends appropriately in Japan—best customer for U.S. agricultural products. Here are Japanese metic-

ulously cultivating their small farms, which though productive are hardly adequate to take care of growing food needs.

The hustle and bustle of Japan today is shown in the throngs of people crowded into subways by hired "hip pushers" and in the famous Ginza with its bright lights, its mass of humanity, and its hundreds of shops. Wheat, soybean, and feedgrains have all been winners in this vibrant market as seen by the abundance of their byproducts on supermarket shelves. Still, probably the most satisfying evidence of their success is the contented smile on a schoolboy's face as he eats American-style bread supplied by his school lunch program.

Prints of the movie will be available soon for loan from audio-visual centers of State universities; or inquire of Motion Picture Service, U.S. Department of Agriculture, Washington, D.C. 20250. Television stations should address requests with specific dates directly to the Motion Picture Service. Prints also may be purchased from MPS at \$132 each.

Japan's Growing Plywood Needs Attract APA

The newest of U.S. cooperators—the American Plywood Association—has been sizing up possibilities for sales in Japan and sees a bright outlook for U.S. trade in this fast-growing market for processed wood products.

Last spring an APA team held a 3-day seminar in Tokyo, then divided to lead sessions in Osaka, Nagoya, Fukuoka, and Hiroshima. Altogether about 550 architects, builders, and distributors attended.

Japanese interest in American plywood at the consumer—as well as trade—level was seen in April at the U.S. Food and Agricultural Exhibition in Tokyo, where the floor of the forest products booth was scuffed black by the shoes of Japanese who jumped up and down on what they considered "thin" flooring. Plywood was only one of a wide variety of processed wood products from more than 30 American firms popular at the fair.

High regard for wood is part of Japanese life. But the country's wood products industry—while expanding rapidly—is not meeting Japan's growing needs and it seems probable that an increasing share of the wood used in Japan will be imported. Japan now faces housing shortages of nearly 7 million units, so that interest in prefabricated housing—till now resisted—is opening up. Also, a new

government requirement calling for let-in corner bracing in new construction to reinforce against wind and earthquake pressures poses problems apparently best answered by plywood. By U.S. standards a single panel at each corner is adequate bracing for a 40- to 50-foot wall. The longest wall in the standard-size Japanese house is about 26 feet.

A new idea for Japan in prefabrication that is catching on fast is the use of prefabricated plywood housing in the construction of vacation homes—both for private ownership and as rental units. The rising incomes of Japanese workers and the growth of fast, low-cost transportation will probably continue this interest in a "second home."

Points to watch for in selling plywood to Japan:

- The Japanese do not like to paint wood and universally prefer clear plywood panel faces.

- A potential market exists for natural-finish material pressure-treated with fire-retardant chemicals.

- Improvement is needed in U.S. shipping practices that damage faces and edges of sidings, ruin tongue and groove edges, and permit warping.

- More Japanese-language literature is needed for grading nomenclature.

Food for Freedom Program Extended for 2 More Years

President Johnson on July 29, 1968, approved extending the Food for Freedom program (Titles I and II of Public Law 480) through December 31, 1970. Authorizations for this food-aid program will remain at past levels, but a number of new amendments have been added, with the primary aim of improving the U.S. balance-of-payments position. The more significant changes are reviewed here.

Among these changes is the "Purcell Amendment." This amendment, which revises Section 103(b), makes it mandatory rather than discretionary for the U.S. Government to require that countries purchasing P.L. 480 commodities on long-term credit make advance payments upon delivery in dollars or local currency. These payments, called special currency payments (SCP's), are to be used by the U.S. Government for a number of activities that hitherto had been a drain on U.S. dollars. These include U.S. Government uses, common defense programs, loans to private enterprises, and nutritional and family-planning programs.

The SCP's will be negotiated with only those P.L. 480 countries where holdings of local currency are less than enough to meet current U.S. needs. The size of the SCP's are to be determined by the size of Title I sales agreements, the supply periods, U.S. local currency needs, and the recipients' ability to pay. Where possible, the payments will be enough to cover normal U.S. obligations for 1 year, taking into account other repayments of principal and interest available for U.S. market development activities. The SCP's represent a further hardening of P.L. 480 terms for recipient countries.

Other amendments permit up to 50 percent of the foreign currency received in payments for commodities to be sold for dollars to U.S. importers and a similar proportion to be sold to foreign and U.S. contractors for payments of wages earned in the development and consumption of public works in the recipient country. These two amendments are intended to assist in improving the U.S. balance of payments within the framework of our obligations and those of

recipient countries under international agreements but not to impair the objectives of P.L. 480 as set forth in its preamble. The phrasing of the amendment is considered sufficiently flexible to allow for no assurance of such convertibility should it jeopardize negotiability of sales agreements of mutual interest to the United States and the purchasing country.

Another change related to U.S. balance-of-payments considerations is Section 103(c) which requires that the United States obtain a fair share of any increase in a food-aid recipient's commercial purchases of farm products. This amendment provides Congressional reinforcement for a past policy. Since the beginning of P.L. 480 in 1954, the United States has stressed the development and expansion of export markets, and Congress has authorized large appropriations each year to carry out a market development program abroad.

The new provision intends that, consistent with U.S. obligations under international agreements, the United States should benefit equitably from the development of new commercial markets in countries receiving U.S. commodities on concessional terms as the economies of such countries advance.

Within this framework the amendment enjoins Washington agencies and overseas missions to be on the lookout for agricultural export opportunities in all P.L. 480 countries, to take note of recipient countries' import policies with a view to identifying and correcting those that may impede fair U.S. participation in the markets, and to work with host governments to improve U.S. sales opportunities in the commercial markets.

Normal marketings protected

It does not, however, change in any way earlier adopted provisions intended to safeguard U.S. commercial trade and to avoid disrupting world prices of farm products, or normal patterns of trade with friendly countries.

As in the past, the program offers the greatest help to countries striving to improve their own agriculture. Also, it gives added emphasis to family-planning programs, allowing for this purpose 5 percent and more of total sales proceeds in countries that request help in population control. The 5-percent figure is not intended as a limitation on the amount of proceeds of foreign currency sales that could be used for population control.

1968 Changes in Public Law 480

1. Extends sales under Title I and donations under Title II for 2 years, through December 31, 1970; continues annual \$1.9 billion authority for Title I and \$600 million for Title II, plus carryover of unused authorizations.
2. Under Title I credit sales, gives authority to the President to require immediate payment of enough foreign currency to cover overseas expenses and programs of the United States in a given country.
3. Requires that steps be taken to obtain for the United States a fair share of any increase in commercial purchases of agricultural commodities by a food-aid recipient.
4. Makes up to 50 percent of foreign currency under future agreements available for sale for dollars to U.S. and purchasing-country contractors for payment of wages earned in the country for public works projects.
5. Permits convertibility of up to 50 percent of foreign currencies in future Title I sales to U.S. importers for procurement of materials or commodities in the purchasing nation.
6. Prohibits CCC financing of P.L. 480 transactions by private exporters, including associated companies, which during the previous 6 months engaged in trade with North Vietnam.
7. Authorizes the use of foreign currency to the maximum extent practicable for carrying out rodent, weed, insect, and plant and animal pest-control programs.
8. Revises barter provisions, limiting barter for strategic materials to bilateral transactions.
9. Reduces the size of the Joint Legislative-Executive Advisory Committee and provides for four meetings per calendar year.
10. Encourages greater use of local currencies for population control (not less than 5 percent if requested) and requires not less than 2 percent of sales proceeds for international, educational, and cultural exchanges (broadens extent of previous coverage under which 2 percent convertibility had been earmarked as a matter of policy).
11. Adds population control to list of self-help measures to be considered before entering into agreements.

Promotion Projects for U.S. Wheat in Asia



Cooks prepare spicy wheat pancakes for sampling during a mobile nutrition unit cooking demonstration in Kerala State.

India's Mobile Units

In India's southern Kerala State, where people have always been rice eaters, wheat is now comprising an increasing portion of the diet. Much of the wheat used is grown on U.S. farms.

Two mobile nutrition extension units, sponsored by ladies' clubs and Wheat Associates, USA, have helped introduce wheat foods in the small cities and villages with about 80 demonstrations a month to groups of between 40 and 65 housewives. A narrating nutritionist combines information about cooking wheat foods with their healthful qualities.

Bread Campaign Taking Hold in Philippines

The Philippines Bakers Institute is still in the early stages of its drive to increase wheat food consumption on the Islands, but its impact is already widely felt. The Institute trains Filipino bakers to produce the high-quality, fresh wheat foods that consumers are being encouraged to try. Wheat Associates, Filipino millers, and FAS jointly sponsor the two-pronged campaign.

To determine how effective the Institute's efforts were in 1967, the Foreign Agricultural Service and Wheat Associates recommended that a survey be taken of bakers and consumers.

The Economic Development Foundation, which did the polling, revealed that after only a year—

- Some 31 percent of bakers were familiar with the Institute, 60 percent knew its aims, and most of these felt the Institute could help them.

- More than 40 percent of bakers knew about the baker's training program; about 22 percent mentioned the bakers' school.

- Out of a sample of 207 bakers, 21 had attended the school's 5-week course.

- During the year almost 27 percent of Filipino households increased bread consumption, and 1.3 million households out of 5.9 million reported they had read, seen, or heard something about bread.

Some basic proposals and guidelines based on the EDF evaluation are being drawn up for this year's bread campaign.

As part of the 1968 promotion, Wheat

Associates set up the end-of-aisle stand pictured at right for the special "Food Fair USA" July promotion in Manila's New Frontier supermarket. Cake and cookie mixes, pasta products, snack foods, and bread were featured wheat items. (New Frontier stocks hundreds of American food products in its regular line—including canned and frozen vegetables, fresh citrus, candies, and baby foods—and introduced many new items during the month-long promotion.)

The United States has increased its share of the Filipino wheat import market by about 26 percent so far this year.



Taipei Wheat Team Hosted by U.S.

The Republic of China stepped from P.L. 480 status to that of a worldwide cash buyer during 1967 and in the same year upped per capita wheat consumption an estimated 10 percent. Both changes are good reasons for strong U.S. wheat producer interest in the Taipei market—and vice versa.

Recently a 6-member wheat team from Taipei (composed of 2 government and 4 wheat milling industry officials) spent 3 weeks in the United States seeing large-scale U.S. wheat production and marketing operations at firsthand. Since the team's members are responsible for Taipei's wheat purchases on a working level, the opportunity for intensive discussion with U.S. wheat specialists was valuable to both countries.

Visits with grain exporters in Oregon, a day on a Washington wheat farm, a visit to the Chicago Board of Trade and conferences at USDA in Washington, D.C., were high points in their trip across the continent. Wheat Associates and FAS sponsored the group's tour.

The Republic of China—fastest growing Asian market for U.S. wheat—was the fifth largest cash buyer of U.S. wheat during July 1967-June 1968. Total purchases equaled 450,000 metric tons. From 1965 to 1967, wheat imports increased from 236,000 metric tons to 294,000. That growth in the urban population, which tends to eat more wheat, is outpacing increases in rural areas is an important factor in the expanding market.

Doughnuts in Japan

Plain and fancy doughnuts made with U.S. wheat are becoming more and more popular with the Japanese, thanks to widespread consumer advertising by Nisshin Flour Mills of Japan and the Doughnut Corporation of America. During a joint promotion in April and May of this year doughnut sales nearly doubled—from \$833,000 to \$1,600,000—with a resultant boost in sales of the Nisshin-DCA doughnut mix to bakers.

Since the campaign's conclusion, Nisshin-DCA has maintained mix sales at 50 percent more than during the same period last year.

The U.S.-Japanese spring effort grew out of the enthusiastic reception for doughnuts promoted in Tokyo supermarkets in conjunction with the American Festival food show in April. Consumers sampled and bought thousands of the doughnuts made with Nisshin's specially prepared mix and deep-fat fried in U.S. soybean oil.

The Japanese housewives pictured at top of page are buying the doughnuts,



which differ greatly from Japan's traditional heavier, thicker doughnuts.

Wheat Associates and the American Soybean Association contributed to the spring campaign, specifically toward the publication of leaflets describing the quality of doughnuts made of and fried in American products.

U.S. Foods Shown at Philippine Supermarket

Shoppers in record numbers flocked to the New Frontier Supermarket in Quezon City, Philippines, during a summer promotion "Food Fair USA."

Officials of the Republic's largest supermarket reported that sales were more than double the normal volume and that crowds exceeded those at Christmas when shopping is usually heaviest.

Local newspapers and magazines carried ads heralding the promotion, as did bus posters and red-white-and-blue decorations around the city.

The July promotion, which featured hundreds of U.S. food items, was sponsored jointly by the New Frontier Supermarket, participating U.S. food importers, and the U.S. Department of Agriculture.



U.S. Wheat Campaign Gets Started in Korea

Flour millers and retailers in the newest emerging cash market for U.S. wheat—South Korea—were introduced in June to a variety of foods made from U.S. wheat.

Wheat Associates and the Korean Flour Millers Industry Association sponsored the "trade only" show in Seoul at the request of an official Korean delegation which had seen the U.S. wheat exhibit at the April U.S. food show in Tokyo.

The delegation felt that a similar show in Korea would help mine the potential market there for wheat. Korea's steadily growing economy and increased consumer affluence has substantially boosted the demand for quality foods.

Tradesmen at the Seoul show saw the North Dakota Wheat Commission's durum-pasta exhibit and slides of U.S. wheat production and storage. The group also saw two color films—"Macaroni Menu Magic" and "Amber Fields of Grain."

Wheat Associates also plans to be on hand at the Korea Trade Fair (September 9-October 20), the country's first international show, with an exhibit featuring doughnuts; pancakes, waffles; plain and cinnamon toast; and deep-fried, batter-covered hot dogs.

A festive atmosphere prevailed in the store. Here shoppers receive colorful balloons from checkout clerks outfitted in American Indian costumes. The store was gaily decorated in red-white-and-blue streamers, posters, and window cards.

CROPS AND MARKETS SHORTS

Weekly Report on Rotterdam Grain Prices

Rotterdam offer prices for U.S. hard wheats increased between August 20 and August 27, 1968. The price for U.S. Hard Winter was up 3 cents, while U.S. Spring increased 1 cent. U.S. Soft Red Winter decreased 1 cent. Canadian Manitoba remained unchanged. USSR 121 was again quoted for the first time since early July when it was offered at \$1.88 per bushel. Argentine prices were unquoted.

U.S. corn was down 2 cents while Argentine corn increased 2 cents and South African White rose 1 cent.

A listing of the prices follows.

Item	Aug. 27	Aug. 20	A year ago
	Dol. per bu.	Dol. per bu.	Dol. per bu.
Wheat:			
Canadian No. 2 Manitoba	2.02	2.02	2.15
USSR 121	1.99	(¹)	(¹)
U.S. No. 2 Dark Northern Spring, 14 percent	1.94	1.93	2.05
U.S. No. 2 Hard Winter, 14 percent	1.95	1.92	1.95
Argentine	(¹)	(¹)	(¹)
U.S. No. 2 Soft Red Winter	1.77	1.78	1.70
Corn:			
U.S. No. 3 Yellow	1.21	1.23	1.45
Argentine Plate	1.43	1.41	1.61
South African White	1.39	1.38	(¹)

¹ Not quoted.

Note: All quotes c.i.f. Rotterdam for 30- to 60-day delivery.

USSR Expects Large Sugarbeet Crop

The condition of sugarbeets in the Soviet Union this year is reportedly good, and official statements have been made which indicate that the 1968 harvest will not be lower than last year's. Plantings are estimated at about 3.6 million hectares (8.9 million acres), slightly less than in 1967. The density of the plants this year is reportedly above that of 1967, and the average weight of beets may be slightly higher.

Production of sugarbeets in 1967 amounted to 86.9 million metric tons, which resulted in an outturn of some 10.5 million metric tons of raw sugar.

Record Sugar Output in British Honduras

Sugar production in British Honduras reached a record 63,588 long tons (71,219 short tons) for the 1967-68 season. Production has now increased every year since 1962, when only 26,000 long tons were produced. The production target for 1967-68 was 75,000 long tons. The shortfall of more than 11,000 tons resulted from cane shortages caused by fires and widespread frog hopper infestation in 1967.

In both the 1966-67 and 1967-68 years, total sugar production has exceeded the combined domestic market and international quotas of the country. Therefore, part of the production has been sold at world market prices. As world market prices are well below production costs, the sugar

industry in British Honduras has reported a loss in 1967 and expects another substantial loss in 1968.

U.S. Cotton Exports High in July

Raw cotton exports from the United States in July 1968 amounted to 357,299 running bales. This compares with 228,083 bales shipped in the same month last year and is the largest July movement since 1964.

U.S. COTTON EXPORTS BY DESTINATION
[Running bales]

Destination	Year beginning August 1				
	Average 1960-64	1964	1965	1966	1967
	1,000 bales	1,000 bales	1,000 bales	1,000 bales	1,000 bales
Austria	23	11	3	4	1
Belgium-Luxembourg	121	80	43	52	45
Denmark	14	6	7	8	10
Finland	17	11	8	15	11
France	319	184	108	163	148
Germany, West	269	217	92	159	100
Italy	345	260	102	263	253
Netherlands	110	65	38	31	36
Norway	13	13	10	10	7
Poland & Danzig	125	67	42	78	77
Portugal	21	22	6	1	8
Spain	74	28	10	1	7
Sweden	81	58	59	71	75
Switzerland	74	66	35	79	60
United Kingdom	244	153	131	153	125
Yugoslavia	112	109	169	139	64
Other Europe	17	10	12	11	25
Total Europe	1,979	1,360	875	1,238	1,052
Australia	61	60	33	17	17
Bolivia	7	5	4	9	0
Canada	353	390	269	297	142
Chile	18	1	3	3	1
Colombia	3	1	57	1	0
Congo (Kinshasa)	6	29	25	34	13
Ethiopia	9	4	20	9	22
Ghana	1	(¹)	1	15	12
Hong Kong	148	150	94	183	299
India	314	243	63	289	342
Indonesia	40	47	(¹)	161	70
Israel	15	23	5	2	4
Jamaica	4	5	5	5	1
Japan	1,192	990	705	1,293	1,103
Korea, Republic of	261	261	301	372	351
Morocco	12	12	12	14	35
Pakistan	14	9	6	3	18
Philippines	123	75	93	134	154
South Africa	41	43	27	38	23
Taiwan	209	203	178	373	378
Thailand	34	55	55	70	90
Tunisia	2	6	13	15	14
Uruguay	6	0	(¹)	0	0
Venezuela	8	6	5	1	(¹)
Vietnam, South	46	63	73	66	24
Other countries	18	19	20	27	41
Total	4,924	4,060	2,942	4,669	4,206

¹ Less than 500 bales.

Shipments during the entire 1967-68 season (August-July) totaled 4,205,578 bales, down around 10 percent from the 4,668,842 bales exported in the 1966-67 season. Exports from this country in 1967-68 were down from those of the previous year because of slightly larger exportable supplies in foreign producing countries and a failure of consumption to expand in a number of importing countries.

Aggregate exports of cotton to Europe in 1967-68 were about 200,000 bales below the 1966-67 level. Shipments to Japan were also down around 200,000 bales from those of a year earlier. Exports to Canada in 1967-68 amounted to little more than a third of shipments to that country in the prior season.

U.S. General Tobacco Imports Decline Again

General imports (arrivals) of unmanufactured tobacco, with totals of 11 million pounds, valued at \$5 million, declined for the fifth consecutive month in June 1968. June 1967 general imports amounted to 17 million pounds with a value of \$7 million.

In the January-June 1968 period general imports in the flue-cured and burley category increased approximately 10 times above imports in this category for the same period in 1967. About 61 percent of the flue-cured and burley imports in the first half of 1968 consisted of takings from Korea and Mexico with the rest from several other countries including Argentina, Thailand, Canada, and Zambia.

U.S. GENERAL IMPORTS OF UNMANUFACTURED TOBACCO

Item	1967		1968	
	Quantity	Value	Quantity	Value
January-June:	1,000	1,000	1,000	1,000
Cigarette leaf (flue & burley)	pounds	dollars	pounds	dollars
Cigarette leaf, other ..	584	170	5,606	2,045
Cigar wrapper	157,256	107,231	131,696	89,220
Mixed filler & wrapper	175	843	265	1,128
Cigar filler, unstemmed	342	698	62	356
Cigar filler, stemmed	10,408	3,341	19,510	6,139
Scrap	1,121	1,177	1,704	2,065
Total ¹	9,438	1,633	14,662	3,429
June:	179,324	115,093	173,505	104,382
Cigarette leaf (flue & burley)	0	0	368	379
Cigarette leaf, other ..	9,923	5,305	4,044	2,035
Cigar wrapper	58	239	42	193
Mixed filler & wrapper	45	122	0	0
Cigar filler, unstemmed	3,875	1,030	3,878	1,270
Cigar filler, stemmed	222	282	563	644
Scrap	2,884	439	2,266	560
Total ¹	17,007	7,417	11,161	5,081

¹ Excludes stems. Bureau of the Census.

Greek Dried Fig Grower Prices, Subsidies

The Greek Government has announced 1968 crop grower prices and income support grants for dried figs. The Greek growers receive a direct subsidy based on quality of fruit delivered in addition to the selling price established by the government. The 1968 programs differs from last year's in that size of delivery no longer affects the rate of subsidy.

The government will make \$1 million available to cover the 1968 crop dried fig programs, almost twice the 1967 crop total of \$530,000.

GREEK FIG PRICES AND GRANTS

Item	1967	1968	
	<i>U.S. cents</i>	<i>U.S. cents</i>	
Prices paid to growers:	<i>per lb.</i>	<i>per lb.</i>	
Grade A	9.1	8.3	
Grade B	6.6	5.4	
Grade C	6.0	4.8	
	2.2 tons or less	Over 2.2 tons	All
	<i>U.S. cents</i>	<i>U.S. cents</i>	<i>U.S. cents</i>
Grower income support grants:	<i>per lb.</i>	<i>per lb.</i>	<i>per lb.</i>
Grade A	0.5	0	0.5
Grade B	2.0	1.2	2.0
Grade C	2.3	1.5	2.3

Philippine Coconut Products Exports Drop

Registered exports of copra from the Philippine Republic for January-July 1968 totaled 295,261 long tons compared with 417,714 a year earlier. Movement to the United States, at 160,243 tons, increased 29,673, while movement to Europe at 112,700, decreased 107,857.

Coconut oil exports for January-July 1968 were 124,150 long tons, an increase of 1,037 from those of last year. Shipments to the United States totaled 109,043 tons, compared with 106,559 in the same period a year earlier.

Exports of desiccated coconut for July 1968 increased to 8,314 short tons from 6,224 tons last year. January-July exports were 40,067 tons against 33,426 a year earlier. Of the total, 37,269 tons moved to the United States, compared with 24,982 last year.

PHILIPPINE DESICCATED COCONUT EXPORTS

Destination	June		January-June	
	1967	1968 ¹	1967	1968 ¹
	<i>Short tons</i>	<i>Short tons</i>	<i>Short tons</i>	<i>Short tons</i>
United States	3,685	7,608	20,247	29,312
Canada	391	173	1,923	1,142
Netherlands	129	42	667	101
Japan	338	55	926	334
Taiwan	20	60	124	187
Australia	248	95	1,723	511
New Zealand	45	14	228	140
Others	312	41	1,364	26
Total	5,168	8,088	27,202	31,753

¹ Preliminary.

Associated Steamship Lines, Inc., Manila.

Spain Extends Free Entry of Soybeans

The Spanish Government's suspension of import duties on soybeans will now run through October. The suspension, in force since December 24, 1964, was extended on July 17.

Argentine Flaxseed Acreage Up 3 Percent

Area seeded to flaxseed for the 1968-69 crop in Argentina is 1,816,185 acres, according to the first official estimate. This is only 3 percent more than the below-average seedings in 1967, revised to 1,757,622 acres, and one-third less than the 5-year (1963-67) average. Seeding is completed in the northern areas but continuing in the south. Soil and growing conditions reportedly are good.

If yields per seeded acre should approximate the average

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of the last 5 years, production would be only slightly above the 15.3 million bushels produced last year.

Crops and Markets

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Fats, Oilseeds, and Oils

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Tobacco

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Added Wheat Export Payments

To make possible competitive pricing of U.S. Durum and Hard Red Spring wheats entering into world export markets during the period of time when the Great Lakes and upper Mississippi River are closed to navigation, the U.S. Department of Agriculture recently announced an incremental payment program. Such wheat shipped by rail between October 31, 1968, and May 1, 1969, will be eligible for the payments. This will allow the export wheat to be priced about the same in winter as in other months.

The program will be available only for those wheats which originate in areas of the United States from which they normally move into export either through the Great Lakes or down the Mississippi River for export from the Gulf Coast.

Eligible wheat will have the following incremental payment schedules when moved by all-rail facilities to indicated ports: Hard Red Spring from the Atlantic Coast, 21 cents per bushel; Gulf Coast, 18½ cents; Durum from the Atlantic Coast, 21 cents; Gulf Coast, 21½ cents. Durum wheat exported from the Gulf Coast, which does not qualify for the all-rail payment of 21½ cents per bushel, will be eligible for 3 cents-per-bushel incremental payment.

Report: 1967 P.L. 480 Action

The changes and attainments of the 1967 Public Law 480 programs are spotlighted in a recent publication entitled "Food for Freedom—New Emphasis on Self-Help." In addition to being an annual report on P.L. 480 performance, the book explains how the changes enacted in 1966 have affected U.S. sales, donation, and barter programs for agricultural goods.

For those who wish a quick rundown and analysis of the United States performance and of other countries' self-help plans and projects, the introductory section, "Summary and Highlights," should be useful. More detailed information is given in separate sections on Title I activities, or sales programs; on Title II, or foreign donations; and on Title III, or barter operations. For example, in the section on barter, figures are given for transactions on behalf of different U.S. agencies as well as total barter—the second highest since the program began.

Although self-help has always been one of the objectives of U.S. aid for other countries, only recently has it been specially written into agreements made under the programs of P.L. 480. A specific section of the report tells of both the general goals and some special projects of the new self-help actions in foreign countries that receive food aid. An appendix gives the exact self-help programs agreed to by recipient governments.

Some sales are still made for foreign currencies, though steps are being taken to assure a gradual change to sales for dollars of all agricultural commodities. A special section, "Use and Administration of Foreign Currencies," outlines the many utilizations of foreign money accumulated from sales. Programs range from market development and agricultural research to family planning projects and archeological studies by the Smithsonian Institution.

For the economist or other student of the exact workings and progress of P.L. 480 programs, 33 tables of sales, grants, expenditures, projects, commodities, flow to geographic areas, and other pertinent aspects of activities in 1967 are included.

Single copies of the report can be obtained from the Information Division, Foreign Agricultural Service, USDA, Washington, D.C. 20250. Ask for House Document 296, 90th Congress, 2d Session.

Correction: June 3, 1968, page 8, *New Zealand Wool Commission Changes Its Disposal Policy*, in first sentence the word *tons* should read *bales*.